REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested. Claim 10 is amended, and claims 1-9 and 11-13 are unchanged. Claims 1-13 are pending in the application.

Claim 10 is amended to correct an informality; hence, the amendment is "cosmetic" in nature and does not affect the scope of the claim.

Claims 1 and 10 stand rejected under 35 USC §102(e) in view of U.S. Patent No. 6,094,435 to Hoffman. This rejection is respectfully traversed.

The rejection is legally inadequate because the Official Action fails to demonstrate how Hoffman discloses each and every element of the claim. In particular, independent claims 1 and 10 specify "determining an application state for a prescribed network application from a received layer 2 data packet" and "determining an application state for a detected one of a plurality of prescribed network applications from a received layer 2 data packet," respectively.

Further, independent claims 1 and 10 specify "selectively deleting an address entry ... based on the determined application state." As described in the specification, the term "network application" refers to higher-protocol communications (i.e., above layer 2) between two network nodes that involve multiple "application states": network nodes communicate according to a prescribed network application (e.g., OSI Layer 7 ("Application Layer") protocols such as HTTP, SNMP, FTP, Telnet, etc.), resulting in prescribed data flows between the two network nodes; hence, the layer 2 data packets transferred between the network nodes will include payload information that specifies the prescribed network application state, for example a request to initiate a session, acknowledgment, communication during the session, a request to terminate the session, and acknowledgment of termination of the session.

Hence, the claimed determining of an application state by the network switch enables the network switch to identify the presence of data flows between network nodes according to the prescribed network application, enabling the integrated network switch to adjust aging timers according to the prescribed network application parameters. Moreover, the selective deletion of the address entry based on the determined application state enables the network switch to delete the address entry upon determining from the application state that the data flows between the

network nodes is terminated, for example at the end of a session between the two nodes. Hence, the deletion of address entries can be precisely controlled based on the completion of a network application session, as determined by the application state from the received layer 2 data packet.

These and other features are neither disclosed nor suggested by the applied prior art.

Hoffman neither discloses nor suggests the claimed determining an application state for a prescribed network application, let alone selectively deleting an address entry based on the determined application state, as claimed.

In particular, the Office Action asserts that:

> Destination aging in the network element indicates which layer 2 and layer 3 entries are active (determine an application state). The information implements in accordance with IEEE standard 802.1d type address aging (delete an address entry from a network switch address table based on the application state) (column 16, lines 43-53).

This tortured interpretation is inconsistent with the teachings of the reference, which specifies at column 16, lines 43-53 that:

> The entry also contains information relating to source and destination aging. Source aging information indicates whether the source is active or not. In a preferred implementation, this information is updated by the forwarding logic 52 <u>every time the layer 2 source address is matched</u>. The information implements in accordance with IEEE standard 802.1d type address aging. Destination aging in the network element 12 indicates which layer 2 and layer 3 entries are active. The information for an entry is updated <u>every time an entry is matched</u>, either by a layer 2 destination search or a layer 3 match cycle for the entry.
> (Emphasis added).

Hence, Hoffman explicitly teaches that aging is based on identifying whether a <u>matching address</u> is found within a specified aging interval, in accordance with IEEE 802.1D. As shown in the attached Exhibit A (page 2), the IEEE 802.1D Specification (1998) specifies on page 45 that entries "shall be automatically removed after a specified time, the Ageing [sic] Time, has elapsed since the entry was created or last updated." Further , Table 7-4 of the IEEE 802.1D Specification specifies a range of applicable aging parameter values with <u>a recommended default value</u>.

Hence, Hoffman merely discloses that aging is based on whether a <u>matching address</u>

(layer 2 or layer 3) is detected before expiration of the aging interval, and describes no more than the Background Art described on pages 1-2 of the specification.

Moreover, Hoffman states that "[t]he relevant layers for describing this invention include OSI Layers 1 through 4" (col. 2, lines 5-6). Hoffman makes no reference whatsoever to any kind of state, let alone any determination of an <u>application state</u> for a <u>network application</u>, as claimed. As recognized by one skilled in the art, any session interactions that could be considered as an application state between application processes on respective network endnodes are not performed below the Session Layer (Layer 5). (See page 2 of the attached Exhibit 2).

Hence, Hoffman neither discloses nor suggests the claimed determining an application state for a prescribed network application from a received layer 2 data packet.

Moreover, the Examiner is respectfully reminded that the broadest <u>reasonable</u> interpretation of "determining an application state for a prescribed network application" cannot be inconsistent with the specification, which describes that network nodes communicate according to the prescribed network application, where the layer 2 data packets transferred between the network nodes will include payload information that specifies the prescribed network application state, for example a request to initiate a session, acknowledgment, communication during the session, a request to terminate the session, and acknowledgment of termination of the session (see, e.g., page 7, line 32 to page 8, line 11 of the specification).

Hence, "claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their 'broadest <u>reasonable</u> interpretation.'" MPEP § 2111.01 at 2100-37 (Rev. 1, Feb. 2000) (quoting <u>In re Marosi</u>, 218 USPQ 289, 292 (Fed. Cir. 1983)(emphasis in original)).

For these and other reasons, the §102 rejection of claims 1 and 10 should be withdrawn.

Claim 2 stands rejected under 35 USC §103(a) in view of Hoffman and U.S. Patent No. 5,128,926 to Perlman. This rejection is respectfully traversed: the Official Action mischaracterizes the teachings of Perlman by suggesting that "link state" teaches the claimed "application state".

In particular, Perlman explicitly teaches that "[t]he invention relates to updating <u>link state information</u> in networks." (Col. 1, lines 18-19). The <u>link state information</u> refers to whether a

link is operative or inoperative. As described above and illustrated in Exhibit B (page 1), the Data Link Layer (Layer 2) is directed to transfer of data: Perlman is concerned that "each router must know the states (e.g., operative or inoperative) of the links in the network in order to send packets along effective paths to their respective destinations, avoiding, for example, faulty links or routers." Hence, Perlman neither discloses nor suggests the claimed determining the application state.

Regardless, the rejection fails to establish a prima facie case of obviousness because the rejection fails to show how Perlman teaches the claimed feature of claim 2: storing within a network switch port a plurality of templates configured for identifying the application state from respective available application states of the prescribed network application. The rejection merely cites Perlman at col 1, lines 1-28 regarding the description of link status, and does not address the claimed templates.

For these and other reasons, the §103 rejection of claim 2 should be withdrawn.

Claims 8-9 and 11 stand rejected under §103(a) in view of Hoffman and U.S. Patent No. 6,104,696 to Kadambi. This rejection is respectfully traversed. As described on page 1, line 20 to page 2, line 5 of the specification, the use of a "hit bit" is a conventional layer 2 operation for resetting the fixed aging timer specified by the IEEE 802.1D Specification (See Exhibit A).

Claims 8 and 11, however, specify an application-specific aging timer configured for counting the application-specific aging interval. Neither Hoffman or Kadambi, singly or in combination, disclose nor suggest an application-specific aging timer configured for counting the application-specific aging interval for a prescribed network application, as claimed. For these and other reasons, claims 8-9 and 11 are patentable over Hoffman and Kadambi. Hence, this §103 rejection should be withdrawn.

The indication of allowable subject matter in claims 3-7 and 12-13 is acknowledged and appreciated. It is believed these claims are allowable in view of the foregoing.

In view of the above, it is believed this application is and condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-0687, under Order No. 95-307, and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: October 14, 2003